REMARKS:

Claims 47, 48, 50-56, and 58-72 are currently pending in the application.

Claims 1-46, 49, and 57 have been previously canceled without prejudice.

Claims 47, 48, 50-54, 67, and 68 stand rejected under 35 U.S.C. § 112.

Claims 55, 56, 58-62, 69, and 70 stand rejected under 35 U.S.C. § 101.

Claims 47, 48, 50-56, and 58-72 stand rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,861,885 to Strasnick et al. ("*Strasnick*") in view of U.S. Patent No. 6,665,682 to DeKimpe et al. ("*DeKimpe*") and in further view of U.S. Patent No. 6,167,396 to Lokken ("*Lokken*").

The Applicants respectfully submit that all of the Applicants arguments and amendments are without prejudice or disclaimer. In addition, the Applicants have merely discussed example distinctions from the cited prior art. Other distinctions may exist, and as such, the Applicants reserve the right to discuss these additional distinctions in a future Response or on Appeal, if appropriate. The Applicants further respectfully submit that by not responding to additional statements made by the Examiner, the Applicants do not acquiesce to the Examiner's additional statements. The example distinctions discussed by the Applicants are considered sufficient to overcome the Examiner's rejections. In addition, the Applicants reserve the right to pursue broader claims in this Application or through a continuation patent application. No new matter has been added.

DRAWINGS:

The Examiner asserts that new corrected drawings in compliance with 37 CFR 1.121(d) are required in this application, because Figs. 1-24 are sketched by hand.

In response, the Applicants respectfully submit that the original application was filed with twelve (12) sheets of drawings containing twenty four (24) figures. The Applicants are

submitting herewith fifteen (15) sheets containing twenty four (24) figures of replacement drawings, marked as "REPLACEMENT SHEET". In addition, a copy of the replacement sheets of formal drawings is being sent electronically herewith to the Official Draftsperson.

The Applicants respectfully submit that the foregoing fifteen (15) sheets containing twenty four (24) figures of replacement drawings, add no new matter to the application. In addition, the Applicants respectfully submit that the fifteen (15) sheets containing twenty four (24) figures of replacement drawings submitted herewith will not cause any undue burden on the Office.

REJECTION UNDER 35 U.S.C. § 112:

Claims 47, 48, 50-54, 67, and 68 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Applicants respectfully disagree.

Nonetheless, the Applicants have amended independent Claim 47 to expedite prosecution of this Application and to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. By making these amendments, the Applicants do not indicate agreement with or acquiescence to the Examiner's position with respect to the rejections of these claims under 35 U.S.C. § 112, as set forth in the Office Action.

The Applicants respectfully submit that amended independent Claim 47 and dependent Claims 48, 50-54, 67, and 68 are considered to be in full compliance with the requirements of 35 U.S.C. § 112. The Applicants further respectfully submit that amended independent Claim 47 and dependent Claims 48, 50-54, 67, and 68 are in condition for allowance. Thus, the Applicants respectfully request that the rejection of Claims 47, 48, 50-54, 67, and 68 under 35 U.S.C. § 112 be reconsidered and that Claims 47, 48, 50-54, 67, and 68 be allowed.

REJECTION UNDER 35 U.S.C. § 101:

Claims 55, 56, 58-62, 69, and 70 stand rejected under 35 U.S.C. § 101 as allegedly being directed towards non-statutory subject matter.

In response, the Applicants have amended independent Claim 55 to more particularly point out and distinctly claim the Applicants invention. By making this amendment, the Applicants do not indicate agreement with or acquiescence to the Examiner's position with respect to the rejections of these claims under 35 U.S.C. § 101, as set forth in the Office Action. In addition, the Applicants respectfully submit that the amendment to independent Claim 55 is not necessitated by any prior art and are unrelated to the patentability of the present invention.

For at least these reasons, the Applicants respectfully submit that Claims 55, 56, 58-62, 69, and 70 are directed to statutory subject matter. The Applicants further respectfully submit that Claims 55, 56, 58-62, 69, and 70 are in condition for allowance. Therefore, the Applicants respectfully request that the rejection of Claims 55, 56, 58-62, 69, and 70 under 35 U.S.C. § 101 be reconsidered and that Claims 55, 56, 58-62, 69, and 70 be allowed.

REJECTION UNDER 35 U.S.C. § 103(a):

Claims 47, 48, 50-56, and 58-72 stand rejected under 35 U.S.C. § 103(a) over *Strasnick* in view of *DeKimpe* and in further view of *Lokken*.

The Applicants respectfully submit that *Strasnick*, *DeKimpe*, or *Lokken*, either individually or in combination, fail to disclose, teach, or suggest each and every element of Claims 47, 48, 50-56, and 58-72. Thus, the Applicants respectfully traverse the Examiner's obvious rejection of Claims 47, 48, 50-56, and 58-72 under 35 U.S.C. § 103(a) over the proposed combination of *Strasnick*, *DeKimpe*, and *Lokken*, either individually or in combination.

The Proposed *Strasnick-DeKimpe-Lokken* Combination Fails to Disclose, Teach, or Suggest Various Limitations Recited in Applicants Claims

For example, with respect to independent Claim 47, this claim recites:

> *A computer graphical user interface system* comprising one or more memory units, the system comprising:
>
> a database operable to store hierarchically organized data associated with a multi-dimensional hierarchy of data and display the multi-dimensional hierarchy of data to a user; and
>
> *a multi-dimensional graphical user interface* coupled to the database and capable of *user interaction* to provide a *multi-dimensional user interactive graph* comprising:
>
> > *a multi-dimensional axes data hierarchy* including a top layer hierarchy associated with *a first axis dimension*, a top layer hierarchy associated with *a second axis dimension*, and a top layer hierarchy associated with *a third axis dimension*; and
> >
> > *a unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies* of the multi-dimensional axes data hierarchy; and
>
> *a multi-dimensional value hierarchy associated with each of the function values* of the multi-dimensional axes data hierarchy. (Emphasis Added).

In addition, *Strasnick*, *DeKimpe*, or *Lokken*, either individually or in combination, fail to disclose, teach, or suggest each and every element of independent Claims 55 and 63.

The Applicants respectfully submit that *Strasnick* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a "*computer graphical user interface system*" and in particular *Strasnick* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a "*multi-dimensional axes data hierarchy* including a top layer hierarchy associated with *a first axis dimension*, a top layer hierarchy associated with *a second axis dimension*, and a top layer hierarchy associated with *a third axis dimension*" and a "*unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies* of the multi-dimensional axes data hierarchy". Rather, *Strasnick* discloses a navigation system containing graphical objects and uses the term "axis" in association with the navigation system. (Abstract and Column 1, Lines 40-50). *Strasnick* only uses the term axis to refer to an x axis width and a

y axis height of one or more graphical objects in the display such that *a navigator may alter the navigator's perspective of the information landscape by adjusting the x or horizontal dimension relative to the viewpoint of the navigator*. (Column 16, Lines 33-63). *Strasnick* does not disclose, teach, or suggest a multi-dimensional axes data hierarchy, or even a navigation system that is capable of including a unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies associated with multiple axis dimensions. Thus, *Strasnick* cannot provide a "*multi-dimensional axes data hierarchy* including a top layer hierarchy associated with *a first axis dimension*, a top layer hierarchy associated with *a second axis dimension*, and a top layer hierarchy associated with *a third axis dimension*" or even a "*unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies* of the multi-dimensional axes data hierarchy", since *Strasnick* merely describes adjusting the perspective of the information landscape by adjusting the x or horizontal dimension relative to the viewpoint of the navigator.

The Applicants further respectfully submit that *Dekimpe* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a "*multi-dimensional graphical user interface* coupled to the database and capable of *user interaction* to provide a *multi-dimensional user interactive graph*" and in particular *Dekimpe* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a "*multi-dimensional axes data hierarchy* including a top layer hierarchy associated with *a first axis dimension*, a top layer hierarchy associated with *a second axis dimension*, and a top layer hierarchy associated with *a third axis dimension*". In particular, the Examiner equates the "top layer hierarchy associated with *a third axis dimension*" recited in independent Claim 47 with the "*cube*" disclosed in *Dekimpe*. (7 August 2007 Final Office Action, Page 4). However, the "*cube*" disclosed in *Dekimpe* merely illustrates the structure of the database, and **does not include, involve, or even relate to** a "*multi-dimensional axes data hierarchy* including a top layer hierarchy associated with *a first axis dimension*, a top layer hierarchy associated with *a second axis dimension*, and a top layer hierarchy associated with *a third axis dimension*", as recited in independent Claim 47. (Column 5, Line 64 through Column 6, Line 21). In contrast, the "top layer hierarchy associated with *a third axis dimension*" recited in independent Claim 47 is part of the "*multi-dimensional*

graphical user interface" that is "coupled to the database" that provides for "*user interaction*" to "provide a *multi-dimensional user interactive graph*". Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner's comparison between *Dekimpe* and independent Claim 47 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish independent Claim 47 from *Dekimpe*.

The Applicants still further respectfully submit that *Lokken* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a "*multi-dimensional graphical user interface* coupled to the database and capable of *user interaction* to provide a *multi-dimensional user interactive graph*" and in particular *Lokken* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a "*multi-dimensional axes data hierarchy* including a top layer hierarchy associated with *a first axis dimension*, a top layer hierarchy associated with *a second axis dimension*, and a top layer hierarchy associated with *a third axis dimension*". In particular, the Examiner equates "*multi-dimensional graphical user interface*" recited in independent Claim 47 with the "*hierarchy structure*" disclosed in *Lokken*. (7 August 2007 Final Office Action, Page 4). However, the "*hierarchy structure*" disclosed in *Lokken* is merely provided for displaying a decomposition tree and *does not include, involve, or even relate to the multi-dimensional graphical user interface*, as recited in independent Claim 47. (Column 4, Line 60 through Column 5, Line 11). In contrast, Applicants' *multi-dimensional graphical user interface* is coupled to a database and is capable of *user interaction* to provide a *multi-dimensional user interactive graph* wherein the *multi-dimensional axes data hierarchy* includes a top layer hierarchy associated with *a first axis dimension*, a top layer hierarchy associated with *a second axis dimension*, and a top layer hierarchy associated with *a third axis dimension*. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner's comparison between *Lokken* and amended independent Claim 47 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent Claim 47 from *Lokken*.

Previous Office Actions Acknowledged that *Strasnick* Failed to Disclose Various Limitations Recited in Applicants Claims

The Applicants respectfully submit that the 16 October 2006 Office Action and the 1 November 2005 Office Action acknowledged, and the Applicants agreed, that ***Strasnick*** ***failed to disclose various limitations recited in independent Claim 47***. Specifically the Examiner acknowledged that *Strasnick* failed to disclose a "top layer hierarchy associated with ***a third axis dimension***" (16 October 2006 Office Action, Page 10) and *Strasnick* failed to disclose "***the claim limitation of 'axes' and hierarchies within the claim limitation of 'a bottom layer hierarchy associated with the top layer hierarchies of the multi-dimensional axes data hierarchy***'" (1 November 2005 Office Action, Page 12).

The Applicants respectfully request clarification from the Examiner regarding the previously admitted shortcomings in *Strasnick*. The Applicants respectfully traverse the Examiner's assertions regarding the alleged subject matter disclosed in *Strasnick*.

The Office Action Fails to Properly Establish a *Prima Facie* case of Obvious over the Proposed *Strasnick-DeKimpe-Lokken* Combination

The Applicants respectfully submit that the Office Action fails to properly establish a *prima facie* case of obviousness based on the proposed combination of *Strasnick*, *DeKimpe*, and *Lokken*, either individually or in combination. The Office Action has not shown the required teaching, suggestion, or motivation in these references or in knowledge generally available to those of ordinary skill in the art at the time of the invention to combine *Strasnick*, *DeKimpe*, or *Lokken* as proposed. The Office Action merely states that "it would have been obvious to one of the ordinary skill in the art at the time of invention was made ***to have incorporated DeKimpe's (having the Lokken hierarchical data structure***". (7 August 2007 Final Office Action, Page 23). (Emphasis Added). The Applicants respectfully disagree.

The Applicants further respectfully submit that this purported advantage relied on by the Examiner is nowhere disclosed, taught, or suggested in *Strasnick*, *DeKimpe*, or *Lokken*, either individually or in combination. In essence, the Examiner asserts that one of

ordinary skill in the art at the time of the invention would have been motivated "*because Strasnick's two dimensional hierarchy and drilling up and down the hierarchical structure can be extended into higher-dimensional hierarchies including the three-dimensional hierarchy in the three-dimensional layout of the hierarchical structures of displayed objects*". (7 August 2007 Final Office Action, Page 23). (Emphasis Added). The Applicants respectfully disagree and further respectfully request clarification as to how the Examiner arrives at this conclusion. For example, it is not clear what the Examiner means by "*Strasnick's two dimensional hierarchy [...] can be extended into higher-dimensional hierarchies*" (i.e. what "higher-dimensional hierarchies" is the Examiner referring to?). In addition, it is not clear how the Examiner arrives at the conclusion that "*Strasnick's two dimensional hierarchy [...] can be extended into higher-dimensional hierarchies*", and it is further unclear how the Examiner's purported "*extended*" applies to the subject Application. In particular, the Applicants respectfully request the Examiner not only point to the portions of *Strasnick*, *DeKimpe*, or *Lokken* which expressly disclose how "*Strasnick's two dimensional hierarchy [...] can be extended into higher-dimensional hierarchies*", and further explain how the Examiner arrives at this conclusion referencing the cited portions of these references. The Applicants further respectfully submit that the Examiner is using the subject Application as a template to formulate reconstructive hindsight, which constitutes impermissible use of hindsight under 35 U.S.C. § 103(a).

A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the **prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art**. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). (Emphasis Added). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id*. at 1434-35. With respect to the subject Application, **the Examiner has not adequately supported the selection and combination of Strasnick, DeKimpe, or Lokken to render obvious the Applicants claimed invention**. The Examiner's conclusory statements that "it would have been obvious to one of the ordinary skill in the art at the time of invention was made **to have incorporated DeKimpe's (having the Lokken hierarchical data structure**" and that

"*because Strasnick's two dimensional hierarchy and drilling up and down the hierarchical structure can be extended into higher-dimensional hierarchies including the three-dimensional hierarchy in the three-dimensional layout of the hierarchical structures of displayed objects*", *does not adequately address the issue of motivation to combine*. (7 August 2007 Final Office Action, Page 23). (Emphasis Added). This factual question of motivation is material to patentability, and cannot be resolved on subjective belief and unknown authority. *Id*. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983). Thus, *the Office Action fails to provide proper motivation for combining the teachings of Strasnick, DeKimpe, or Lokken*, either individually or in combination.

The Proposed *Strasnick-DeKimpe-Lokken* Combination Fails to Disclose, Teach, or Suggest Various Limitations Recited in Applicants Dependent Claims 67-72

The Applicants respectfully submit that *Strasnick, DeKimpe,* or *Lokken,* either individually or in combination, fail to disclose, teach, or suggest each and every element of Claims 67-72. Thus, the Applicants respectfully traverse the Examiner's obvious rejection of Claims 67-72 under 35 U.S.C. § 103(a) over the proposed combination of *Strasnick, DeKimpe,* and *Lokken,* either individually or in combination.

For example, with respect to dependent Claims 67 and 68, these claims recite:

> 67.   The computer graphical user interface system according to Claim 47, wherein **the multi-dimensional graphical user interface further comprises**:
> **a first wall graphical user interface grid associated with a mathematical summarization of the plurality of function values** associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy. (Emphasis Added).

> 68.   The computer graphical user interface system according to Claim 67, wherein the multi-dimensional graphical user interface further comprises:
> **a second wall grid associated with the mathematical summarization of the plurality of function values** associated with each of

the top layer hierarchies of the multi-dimensional axes data hierarchy. (Emphasis Added).

In addition, *Strasnick*, *DeKimpe*, or *Lokken*, either individually or in combination, fail to disclose, teach, or suggest each and every element of dependent Claims 69-72.

The Office Action Acknowledges that the Proposed *Strasnick-DeKimpe* Combination Fails to Disclose Various Limitations Recited in Applicants Claims

The Applicants respectfully submit that the Office Action acknowledges, and the Applicants agree, that the proposed *Strasnick* and *DeKimpe* combination fails to disclose the emphasized limitations noted above in dependent Claims 67 and 68. However, the Examiner asserts that the cited portions of *Lokken* disclose the acknowledged shortcomings in *Strasnick* and *DeKimpe*. The Applicants respectfully traverse the Examiner's assertions regarding the subject matter disclosed in *Lokken*.

The Applicants respectfully submit that *Lokken* fails to teach, suggest, or even hint at dependent Claims 67 and 68 limitations regarding a "***first wall graphical user interface grid***" and a "***second wall grid***' *associated with the mathematical summarization of the plurality of function values*". Rather *Lokken* merely provides for navigating through data points in a database, and ***does not include or is not even related to a first wall or a second wall graphical user interface grid***, as recited in dependent Claims 67 and 68. Thus, dependent Claims 67 and 68 are not rendered obvious by the proposed combination of *Strasnick*, *DeKimpe*, or *Lokken*, or in knowledge generally available to those of ordinary skill in the art at the time of the invention and are in condition for allowance.

The Applicants Claims are Patentable over the Proposed *Strasnick-DeKimpe-Lokken* Combination

The Applicants respectfully submit that independent Claims 55 and 63 are considered patentably distinguishable over the proposed combination of *Strasnick*,

DeKimpe, or *Lokken* for at least the reasons discussed above in connection with independent Claim 47.

With respect to dependent Claims 48, 50-54, 56, 58-62, and 64-72: Claims 48, 50-54, 67, and 68 depend from independent Claim 47; Claims 56, 58-62, 69, and 70 depend from independent Claim 55; and Claims 64-66, 71, and 72 depend from independent Claim 63. As mentioned above, each of independent Claims 55 and 63 include limitations similar to those discussed above in connection with independent Claim 47. Thus, dependent Claims 48, 50-54, 56, 58-62, and 64-72 are considered patentably distinguishable over the proposed combination of *Strasnick*, *DeKimpe*, or *Lokken* for at least the reasons of depending from an allowable claim and are therefore considered to be in condition for allowance.

For at least the reasons set forth herein, the Applicants respectfully submit that Claims 47, 48, 50-56, and 58-72 are not rendered obvious by the proposed combination of *Strasnick*, *DeKimpe*, or *Lokken*, or in knowledge generally available to those of ordinary skill in the art at the time of the invention, and are in condition for allowance. Thus, the Applicants respectfully request that the rejection of Claims 47, 48, 50-56, and 58-72 under 35 U.S.C. § 103(a) be reconsidered and that Claims 47, 48, 50-56, and 58-72 be allowed.

THE LEGAL STANDARD FOR OBVIOUSNESS REJECTIONS UNDER 35 U.S.C. § 103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, **there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings**. Second, there must be a reasonable expectation of success. Finally, **the prior art reference** (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, **and not based on applicant's disclosure**. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180

U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there **must be something in the prior art as a whole to suggest the desirability**, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991; *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

A recent Federal Circuit case makes it clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

<u>**CONCLUSION**</u>:

In view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and early reconsideration and a Notice of Allowance are earnestly solicited.

A Request for Continued Examination (RCE) is being filed electronically herewith to facilitate the processing of this deposit account authorization. **The Director is hereby authorized to charge the $810.00 RCE fee, to Deposit Account No. 500777**. Although the Applicants believe no additional fees are deemed to be necessary; the undersigned hereby authorizes the Director to charge any additional fees which may be required, or credit any overpayments, to **Deposit Account No. 500777**. If an extension of time is necessary for allowing this Response to be timely filed, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) to the extent necessary. Any fee required for such Petition for Extension of Time should be charged to **Deposit Account No. 500777**.

Please link this application to Customer No. 53184 so that its status may be checked via the PAIR System.

Respectfully submitted,

30 October 2007
Date

/Steven J. Laureanti/signed
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